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ABSTRACT

This study examines the relationship between school consolidation and district transportation costs, effects on instructional expenditures, and institutional factors supporting consolidation. Data on actual student transportation costs across the United States indicate that despite widespread school and school district consolidation, transportation costs have increased, and transportation costs per child are greater in rural than urban school districts. Given the evidence that economy-of-scale arguments fail in rural school districts in terms of transportation costs, reasons beyond fiscal criteria must be driving consolidation. An analysis of the institutional environment shows how consolidation has been justified according to the exaction of state authority over local school districts, and has been supported through national policy towards housing and land use development. Institutional perspectives of organizational legitimacy and survival would not seem to justify consolidation, but consolidation always terminates some organizational form. Perhaps the organizational form of small schools and weak school districts makes them more susceptible to organizational death by other legitimacy-seeking organizations. It appears that higher transportation costs associated with extensive consolidation in rural areas constrain opportunities to fund quality instruction in rural areas. (Contains 44 references and 12 data tables and figures.) (TD)

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School Consolidation and Transportation Policy: An Empirical and Institutional Analysis

A Working Paper for
the Rural School and Community Trust Policy Program

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Preface

This paper is a collaborative project between the authors and the Policy Office of the Rural School and Community Trust. Early empirical work was presented to the Rural School and Community Trust in May of 1999. Substantial revision of those findings took place later that summer and fall, and were released on March 10, 1999 at the Annual Meeting of the American Educational Finance Association in Austin, Texas.

We would like to thank Marty Strange and Belle Zars of the Policy Office for their guidance, comments and patience over this past year. While the impetus for this research rests with the Rural School and Community Trust, any errors and omissions are ours alone. We welcome any comments and suggestions.

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I. Introduction

This research offers new empirical and theoretical insights into the consolidation of schools and school districts across the United States. Although school consolidation began a century ago to reduce fiscal inefficiencies and increase curricular advantages for thousands of small schools (often one-room schoolhouses), some argue that consolidation and professionalization of rural schools has created a new "rural school problem" (Kannapel & DeYoung, 1999). Among the numerous criticisms currently rendered are those that suggest rural schools are now too impersonal with thick bureaucracies, have reduced parental influence and control, and require lengthy bus rides for children. (Kannapel & DeYoung, 1999; Rural Challenge, 1998). The most understudied of these issues is the cost of student transportation, specifically how it relates to the provision of a quality instruction program. In spite of the extensive consolidation across rural areas, transportation costs remain higher in rural districts than their suburban and urban counterparts. This fiscal observation is important in that it appears to further constrain opportunities to fund quality instruction in rural areas.

In this study, we examine the actual costs of student transportation across states and the relationship between transportation and instructional expenditures. We also review the traditional explanations for school consolidation within a framework of broad societal change. We then apply a theoretical lens to gain insight into how changes in institutionalized rules, norms, and beliefs helped to create interest in and reinforce efforts to consolidate schools and districts. The institutional framework is valuable in that it helps to explain how school consolidation took place without the actual benefit of scale economies as suggested by traditional arguments. Implications for research and policy are also addressed.

This research is guided by three central questions:

- *What is the relationship between school consolidation and district transportation costs?*
- *How do transportation costs relate to instructional expenditures?*
- *What factors influenced the education policy environment resulting in dramatic consolidation of schools and school districts and great increases in transportation costs?*

This report is divided into two main parts. In Part I, definitions of school and school consolidation are discussed. Then, background data on student transportation costs are examined in an effort to display relationships between consolidation policy and transportation costs. Part II analyzes the institutional environment for both consolidation and transportation policy as a means of explaining why consolidation has been so prevalent. This research builds on Strang's (1987) investigation into the relationship between state expenditures on public education and rates of school consolidation. We posit that the consolidation and transportation issues are linked and that together they have constrained instructional opportunities for rural children. This report is part of an ongoing study of the numerous impacts of busing and consolidation on rural school children and communities being conducted for the Rural School and Community Trust.

II. Empirical Background

Defining School and School District Consolidation

Consolidation is the process of dissolving or reorganizing one or more schools/school districts into one new unit. Sell, Leistritz and Thompson (1996) defined school district consolidation as composed of both dissolution and reorganization activities. Dissolution means the breakdown of one unit that then merges with a second, adjacent unit; Implicit within this definition is the understanding that the deconstruction leads to the end of one organization. Reorganization means the evolution of two or more units into a new organizational unit. This can also mean the annexation of adjoining territory into the larger or dominant organization. The distinction between the two is really a function of whether or not the unit whose structure changes either dissolves completely or is transferred into a new organization. Although Sell, Leistritz and Thompson use this definition of consolidation to discuss school district transformation the definition holds for school closure and consolidation as well. The contextual difference, then, is whether the focus is on consolidation of district boundaries or actual school facilities.

Why Consolidation Occurs: Traditional Explanations

Under traditional lenses, school and school district consolidations are essentially a product of surplus space in the stock of school facilities held by school districts. Two main events create surplus space: declining student enrollment and the obsolescence of school facilities (Andrews et al, 1974). Retaining, older unoccupied buildings may be viewed as an unnecessary cost born to school districts, and a draw on the fiscal support for instruction. Usually though buildings are not totally unoccupied but may operate well below design capacity. As school districts seek to economize their operations, school districts tend to rid themselves of surplus facilities and merge

other functions into larger facilities. Ridding itself of surplus in this fashion captures the traditional efficiency argument of consolidation: Economy of Scale[1]. This is the notion that school districts may decrease their production costs by increasing the size and administrative operation of their facilities, an idea born from 18th century industrial development (Fanning, 1995).

Increased economies of scale and their associated cost savings are cited as the main reason for rural school consolidation (Tholkes and Sederberg, 1990). Interestingly though, recent empirical research has found that the reasons for consolidation vary by those who experience consolidation. Sell, Leistritz, and Thompson (1996) surveyed citizens in communities in North Dakota that experienced consolidation as recent as 1994. Those who gained students through consolidation are considered the ***hosts***, those who lost are considered the ***vacated***. Citing reasons for consolidation, both host and vacated communities identified increased financial pressures, enrollment issues, student welfare, and parental pressure as issues motivating consolidation. Among the findings, citizens from vacated communities felt more strongly than host communities that consolidation actually improved their fiscal circumstances (Sell, Leistritz, and Thompson, 1996). In summary then, although improved financial conditions (economies of scale) are cited uniformly as the paramount community values leading up to closure and consolidation, the actual community sentiment toward the experience can vary after it occurs.

Regardless of the level at which economies of scale arguments persist or are valid, the argument has proven to be quite powerful in motivating consolidation.

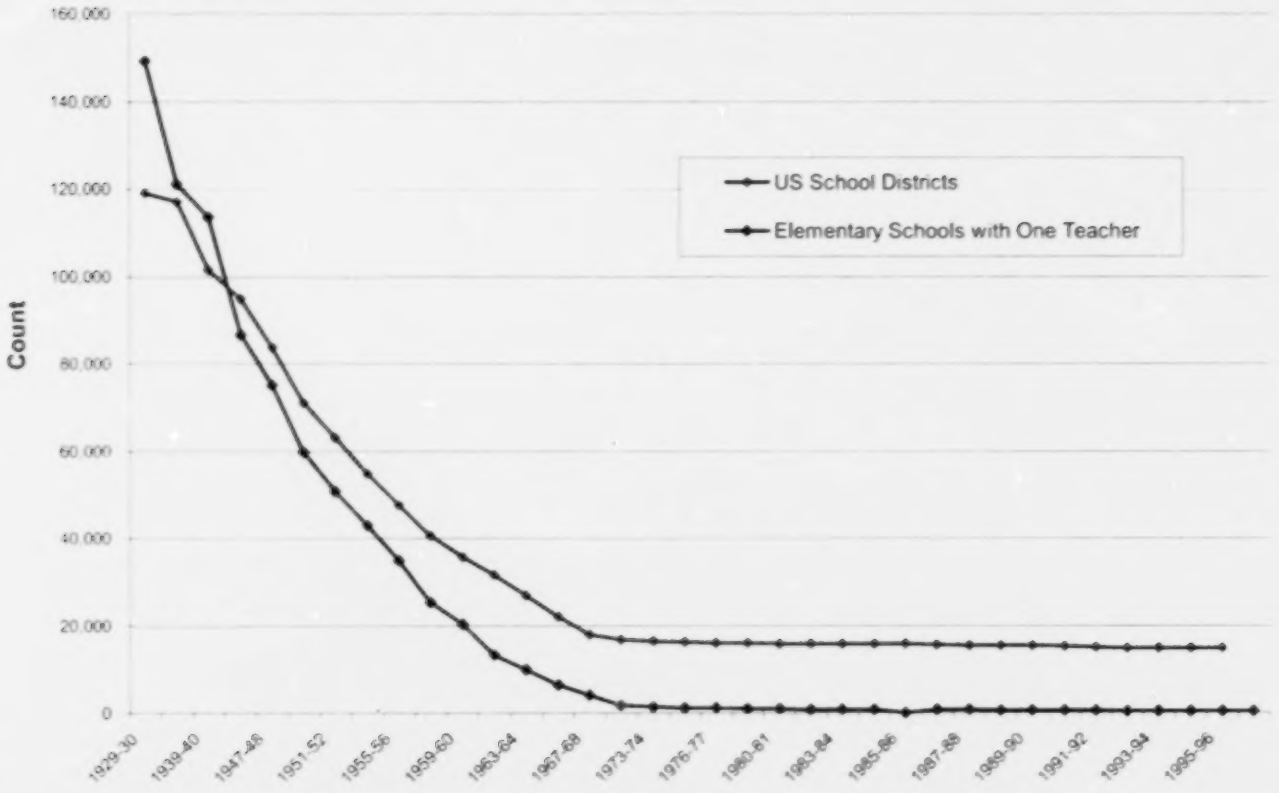
[1] For a brief, yet thoughtful overview of arguments behind economies of scale see Tholkes and Sederberg (1990).

Impacts of Consolidation

Consolidation forced dramatic changes in the number of US schools and school districts during the 20th Century (See Figure 1). At the turn of the century, estimates indicate that well over 125,000 school districts existed across the country. By 1938 there were over 119,000 school districts, but by 1975 there were just over 16,000 school districts. The period between 1939 and 1973 represents the period of greatest decline; School districts consolidated at a rate of 13% per year.

By 1975 this patterned had leveled out to a consolidation rate of less than one half of one percent. Currently, there are just under 15,000 school districts operating across the country. These statistics, however, represent national patterns. It is expected that some states experienced much more variation in their consolidation histories. Some states may have experienced very little district level consolidation, but significant school facility closures. Furthermore, it is clear from the available national data that small, "one room schoolhouses", were largely phased out across the US in a pattern that mirrored district consolidations.

Figure 1: School Districts and Small School Trends: Historical Data, 1930-1997



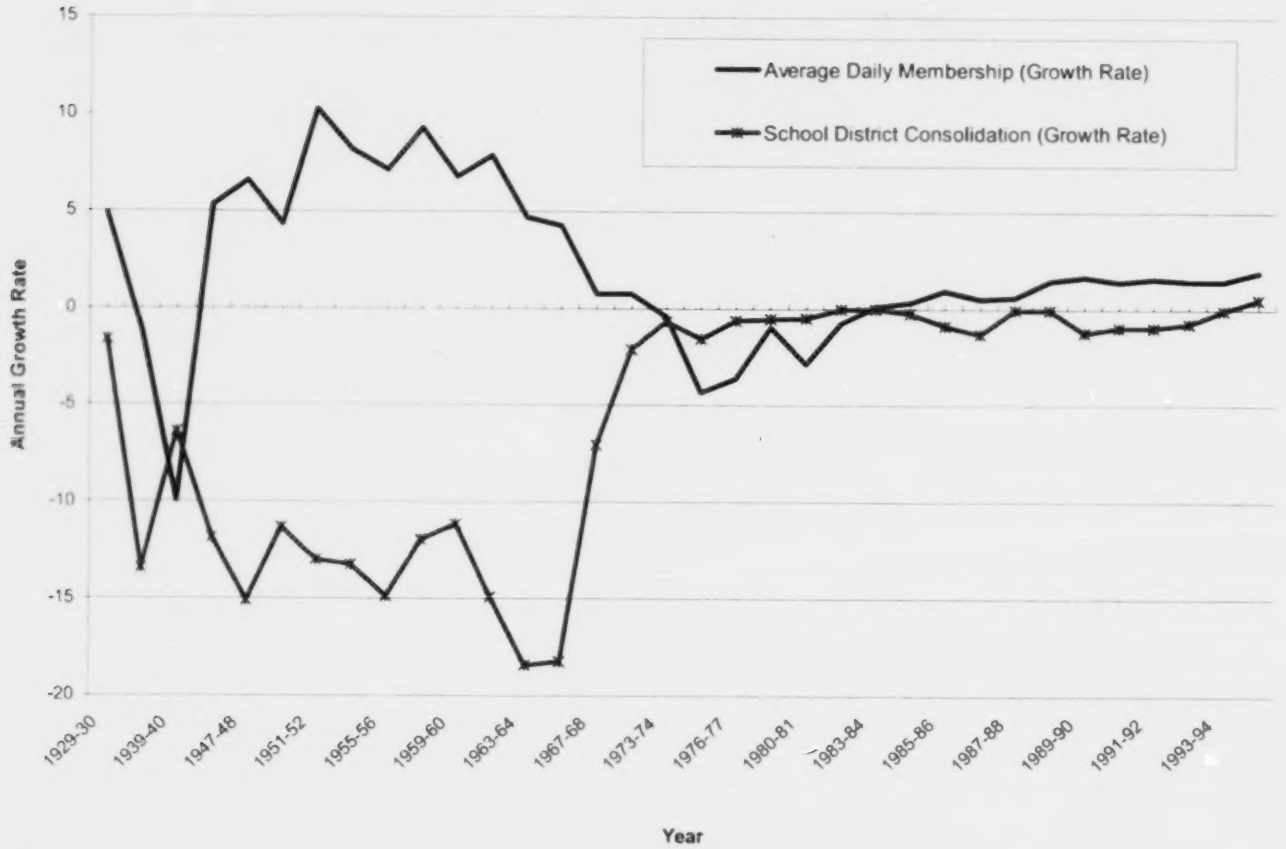
Source Data: NCES Dig. of Education Statistics, 1997, T 90;
Note: (1) The # of school districts between 1984-86 are made equivalent to the 1983-84 school year; (2) Includes operating and non-operating districts.

Consolidation trends among school districts appears to be generally aligned with overall student enrollment trends over the past 100 years (See Figure 2). More specifically, the rate of school district consolidation appears to have an inverse relationship with the rate of student enrollment. More simply stated, as the rate of student enrollment climbs, school districts consolidate, and visa versa. It would appear then that consolidation has less to do with the total volume of students entering a system, than the speed of which they enroll.

This history of consolidation and change in school structure dramatically increased the enrollments in most schools and districts. The average school size in 1930 was 81, but by 1967 that number had quintupled to 433. In 1995-96 the average school size was 473, an all time high. Consolidation clearly forced an increase in the size and capacity of schools and school districts. In addition, it is likely that the increase in students receiving educational services, in part, drove the increase in school and school district capacity. The percentage of children aged 5-17 years of age that attend school has increased by approximately 20% during the 20th Century. In the 1899 school year this rate was 64.7%, in 1929 it had climbed to 81.7%; the rate has steadily climbed to almost 92% by 1996 (NCES 1997, Table 39). These issues will be further analyzed in Part II below.

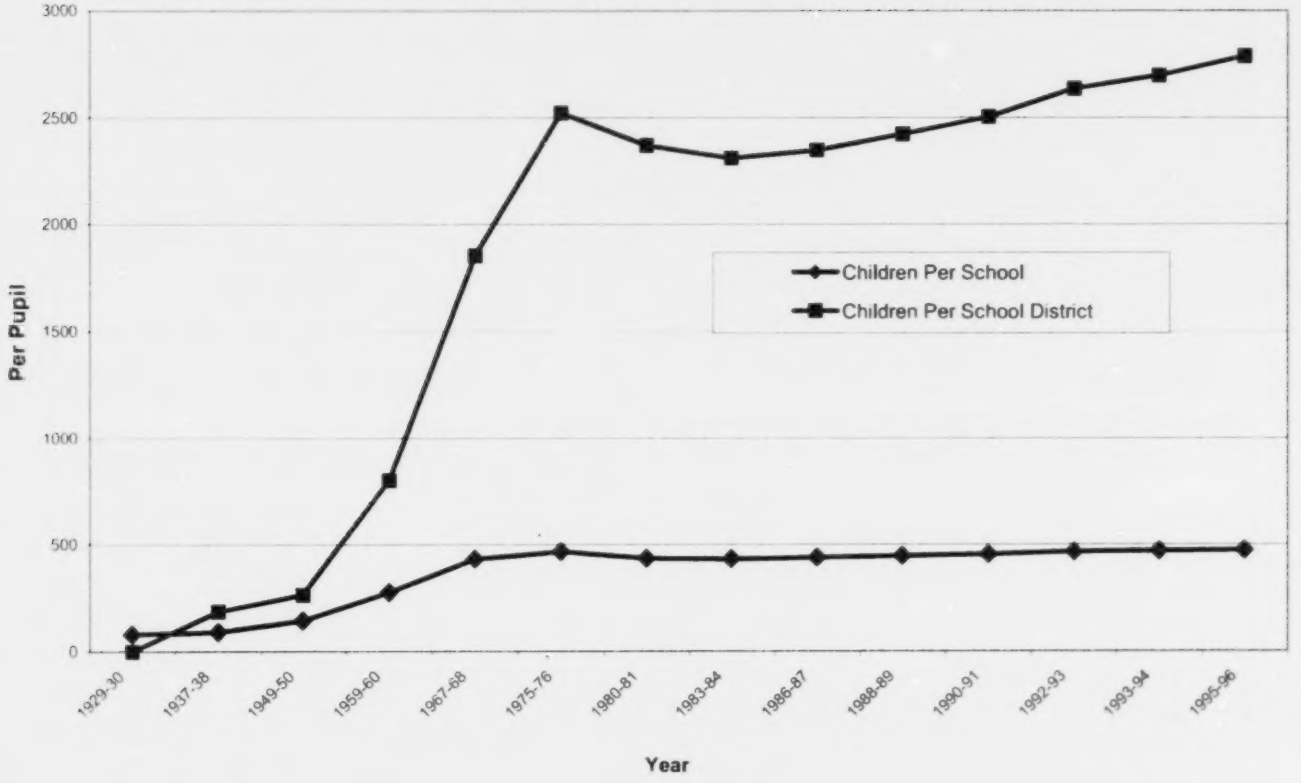
Motivated by improved fiscal management, consolidation brought about multiple levels of benefit for school districts like improved instructional program opportunities and facilities (Monk and Haller 1986).

Figure 2: Historical School District Consolidation and Enrollment Trends



Source Data: Adapted from NCES Digest of Education Statistics, 1997, T 52, T 90;
Note: (1) The # of school districts between 1984-86 are made equivalent to the 1983-84 school year; (2) Includes operating and non-operating districts (3) Due to missing data, enrollment counts for 1970-71, 1976-77, 1978-79 are estimated.

Figure 3: School and School District Size: Historical Data, 1930-1995



Source Data: Adapted from NCES Digest of Education Statistics, 1997, T 52, T 90;
Note: (1) The # of school districts between 1984-86 are made equivalent to the 1983-84 school year; (2) Includes operating and non-operating districts (3) Due to missing data, enrollment counts for 1970-71, 1976-77, 1978-79 are estimated. (4) The denominator for "Children Per School" was calculated by summing all elementary and secondary public schools, and does not include private schools.

Consolidation and Student Transportation

Coupled with radical changes in school and school district size, the impacts of consolidation also brought changes upon student transportation policy. Communities experiencing school consolidation often cite increased bus ride time as the most contentious aspect of consolidation. Children in rural school districts are among the most affected. However, this section also highlights the fact that consolidation brought about rather aggressive changes in transportation financing, changes that differ by geographic location.

The notion that rural school children and rural school districts are the most harmed, in terms of increased bus ride time after consolidation, is relatively simple to understand. When two school districts merge or otherwise fuse their boundaries, the geographic center of that area also moves. The same is true when schools close or modify their attendance boundaries. Children living at the edges of the new boundary must travel further to attend their school because of the interplay between low population density and wider school attendance boundaries. Guthrie (1980[2]) reaffirms this point and laments the lack of research on this topic:

> No study of scale economies of rural schools has attempted to account for increased student transportation time as a consequence of consolidation. In many rural areas, collapse of small schools into larger units has resulted in students riding the school bus up to 60 minutes in each direction. If price were attached to their time, cost savings in larger rural districts might decline substantially.

In stating this, Gutherie identifies the intuitive effects of consolidation, as well as the difficulty in accounting for increased ride time. Anectdotal evidence suggests that ride time for some rural children can reach as high as two hours each way (Zars, 1998)

[2] Gutherie is cited in Nachtigal (1992).

The topic of bus ride time and associated equity issues are typical in discussions of public school desegregation, but not in the context of consolidation. Many large school districts retain and analyze bus ride times by race, for example, in order to weigh the impacts of busing policies. On a national level, however, no data or statistics exist which account for total bus ride time for children. The decision to not collect such data in national datasets such as the National Educational Longitudinal Study or the Schools stems from the political dynamite surrounding desegregation (Owings, 1999). However, fiscal data on the costs of providing transportation over time offer proximate indicators of school busing and transportation policy.

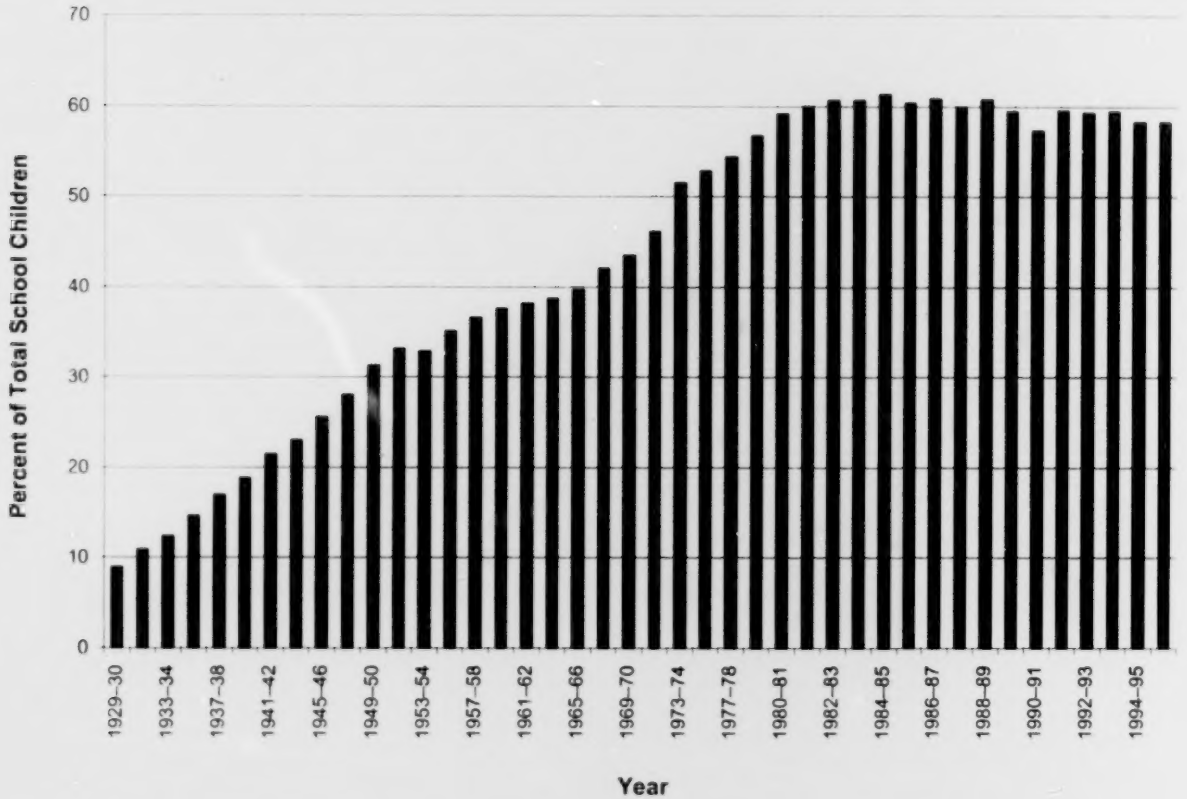
Trends in Transportation Spending

Since the early portion of this century, research into the costs of providing transportation services by school districts shows that school districts have experienced a dramatic rise in their total expenditures for transportation services[3]. More importantly though, research finds that the transportation expenditures for small and rural schools vary significantly from non-rural school districts across the United States. A general overview is offered first.

As a percentage of all school children, the number of children transported to school by bus has grown on annual basis between 1930 and 1980 (See Figure 4). Growth between these years was fairly constant, except for a brief period in the late 1950s when growth in student transportation leveled off. By 1980 growth had subsided, and a plateau was reached. Currently a little under 60% of all school children are bused to school.

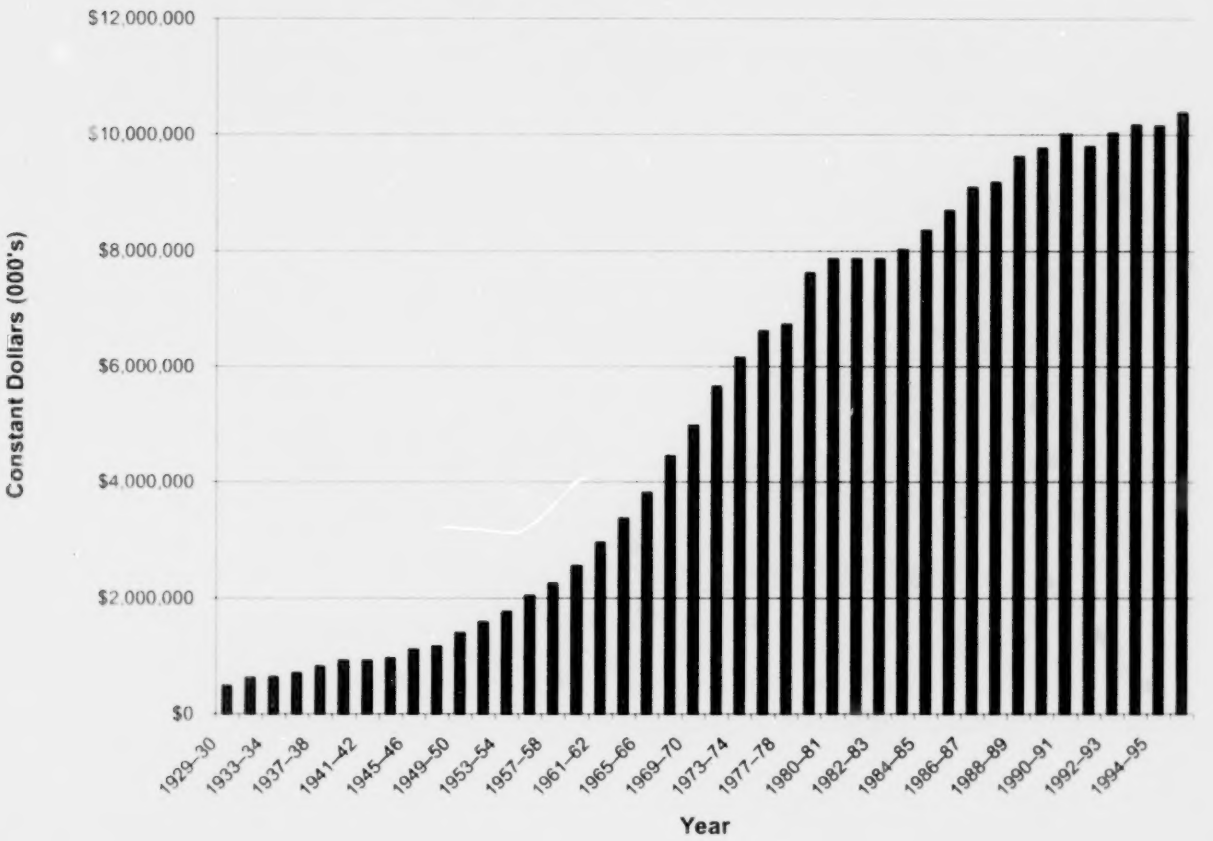
[3] The transportation expenditures and patterns presented here represent the expansion and revision of work presented to the Rural Challenge Institute during May of 1999.

Figure 4: Pupils Transported at Public Expense as a Percentage of All Students, 1929-1995



Source Data: Adapted from NCES Digest of Education Statistics, 1997, T 52

Figure 5: US Public School Transportation Costs: Constant Dollars 95', 1929-1995



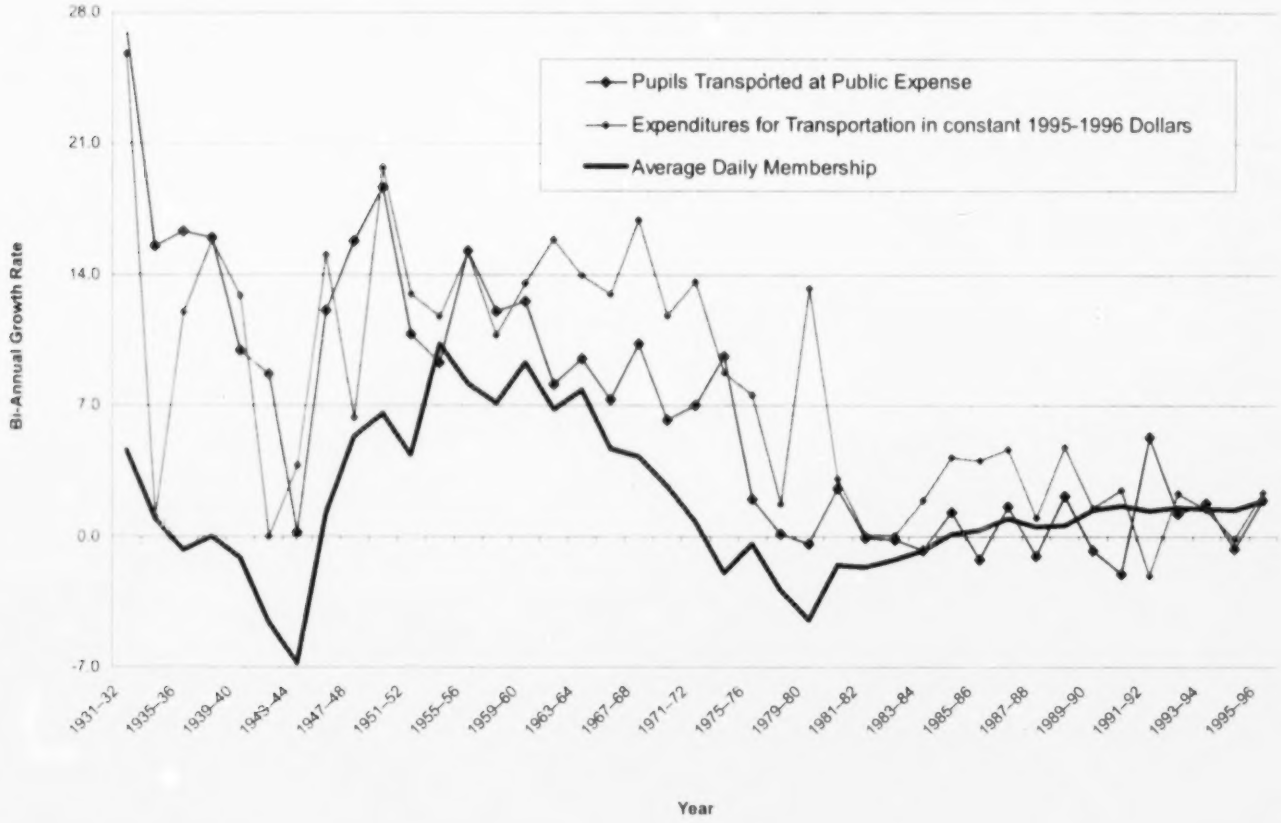
Source Data: Adapted from NCES Digest of Education Statistics, 1997, T 52

In terms of constant dollars, transportation costs have increased in magnitude every year since 1929 (See Figure 5). Until the 1950's transportation costs across the US amounted to less than 2 billion dollars annually. In 20 years that amount doubled, and by 1980 the amounted had doubled again to 8 billion dollars. Spending leveled off during the early 1980's, but began to rise again by 1985. And records indicate that as of the 1995-96 school year US school districts spend over 10 billion dollars annually on transportation services.

Historically, spending on transportation appears to be related to trends in the rate of students actually bused or served by transportation services (See Figure 6). Figure 6 displays bi-annual growth rates for two variables: Bused Students and Transportation Costs. These growth rates are calculated as the difference over two years (bi-annual). Displayed side by side in this fashion allows for analysis of the rate rather than the volume of transported students or transportation costs. The average daily membership growth rate is also included. There are a number of interesting findings from this pictorial. Since 1930 biannual growth rates have fallen significantly, from a high of 27% in 1931-32, to a rate of less than 1% in 1994-95. Second, prior to 1980 bi-annual growth rates in both busing and spending varied dramatically, averaging 10-12%. After 1980, the average growth rate ranged from between .7 and 2%. The period between 1945-46 and 1973-74 represents a period of sustained growth in the numbers of children bused and the associated transportation costs. However, causal lines are not made explicitly clear by this graph.

In general, transportation costs are related to the total volume of students entering school; More specifically, the costs are closely aligned with the total number of students being bused to school. Growth in transportation expenditures consistently exceed the growth rates for overall enrollment and the number of students being bused.

Figure 6: Comparison of Growth Rates: Number of Students Transported vs. Transportation Costs



Source Data: Adapted from NCES Digest of Education Statistics, 1997, T 52

Regional Trends in US School District Transportation Spending

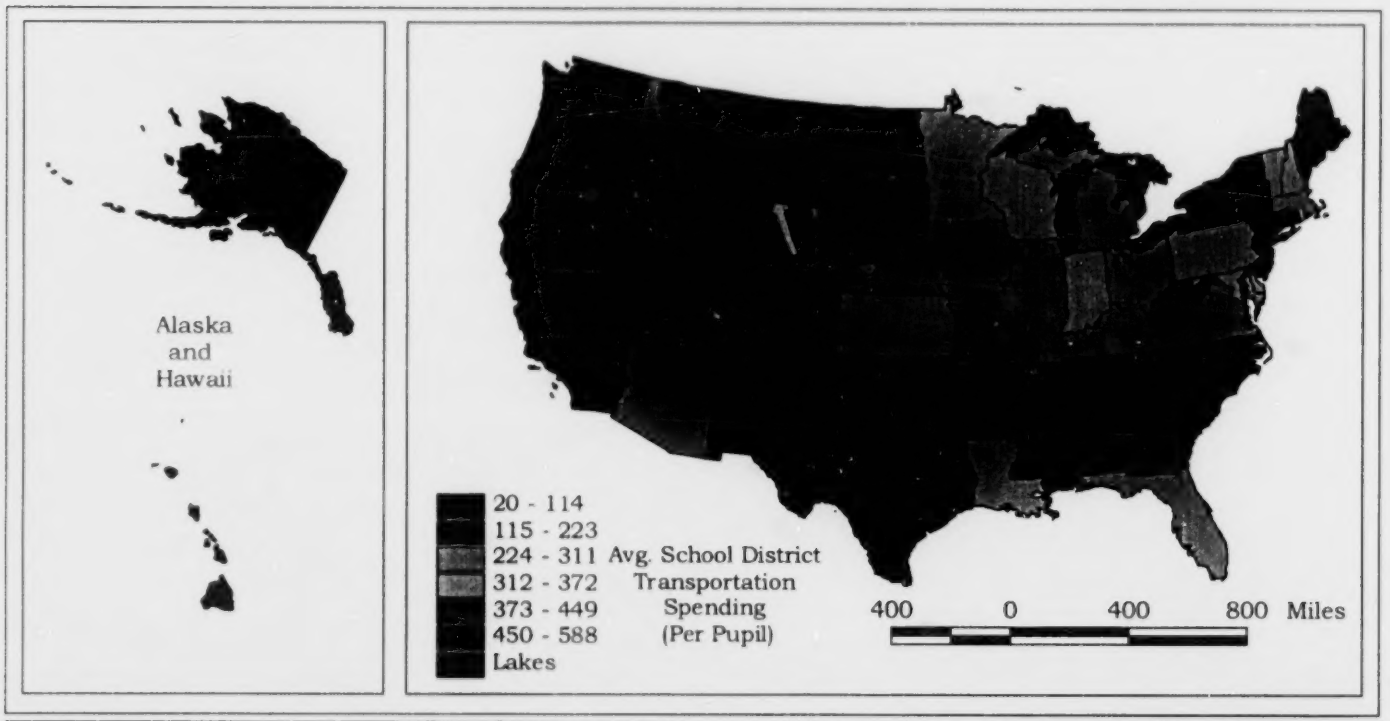
States in the southeast, from Texas to Florida, spend the least per pupil on student transportation. In South Carolina, between 20 to 114 dollars is expended per student in the average school district. California spends in the same range. High spending school districts exist in north east, as well as in the upper half of the US, particularly states like Montana, North Dakota, New York and Maine (See Map 1).

States in the northern half of the country spend proportionately more on transportation as a share of all spending, than do school districts in the south. In terms of all spending on school operations, States like Texas, California, South Carolina, Utah, Colorado and Nebraska devote the least on transportation. States like Louisiana, Missouri, Indiana, Kentucky, Maryland, Delaware, Rhode Island and New Jersey spend the most (See Map 2).

Differences in Transportation Spending by Metropolitan Area

Small school districts in non-metro areas averaged 1260 students in 1994-1995, while urban districts averaged 22, 686. Small school districts spend twice the amount of urban districts on student transportation services. They devote over 4% of their annual budgets to transportation, versus 2.4% for urban districts (See Table 1).

Map 1: Per Pupil Expenditures on Student Transportation Services: Average of all School Districts, by State, 1994-1995 School Year



Map Information

Created by Kieran Killeen
Spatial Data: Esri/TIGER 95
Fiscal Data: 1995 Survey of Local Government Finances (F-33);
NCES 1998 Digest of Educational Statistics
Map Projection: Albers-Equal Area (Cot. US)
Map Units: Miles
Date: January 15, 2000

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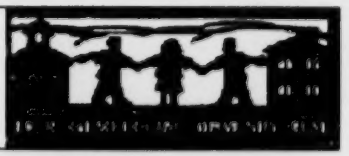

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Map 2: School District Transportation Expenditures as a Share of Current Expenditures: Average of all School Districts, by State, 1994-1995 School Year

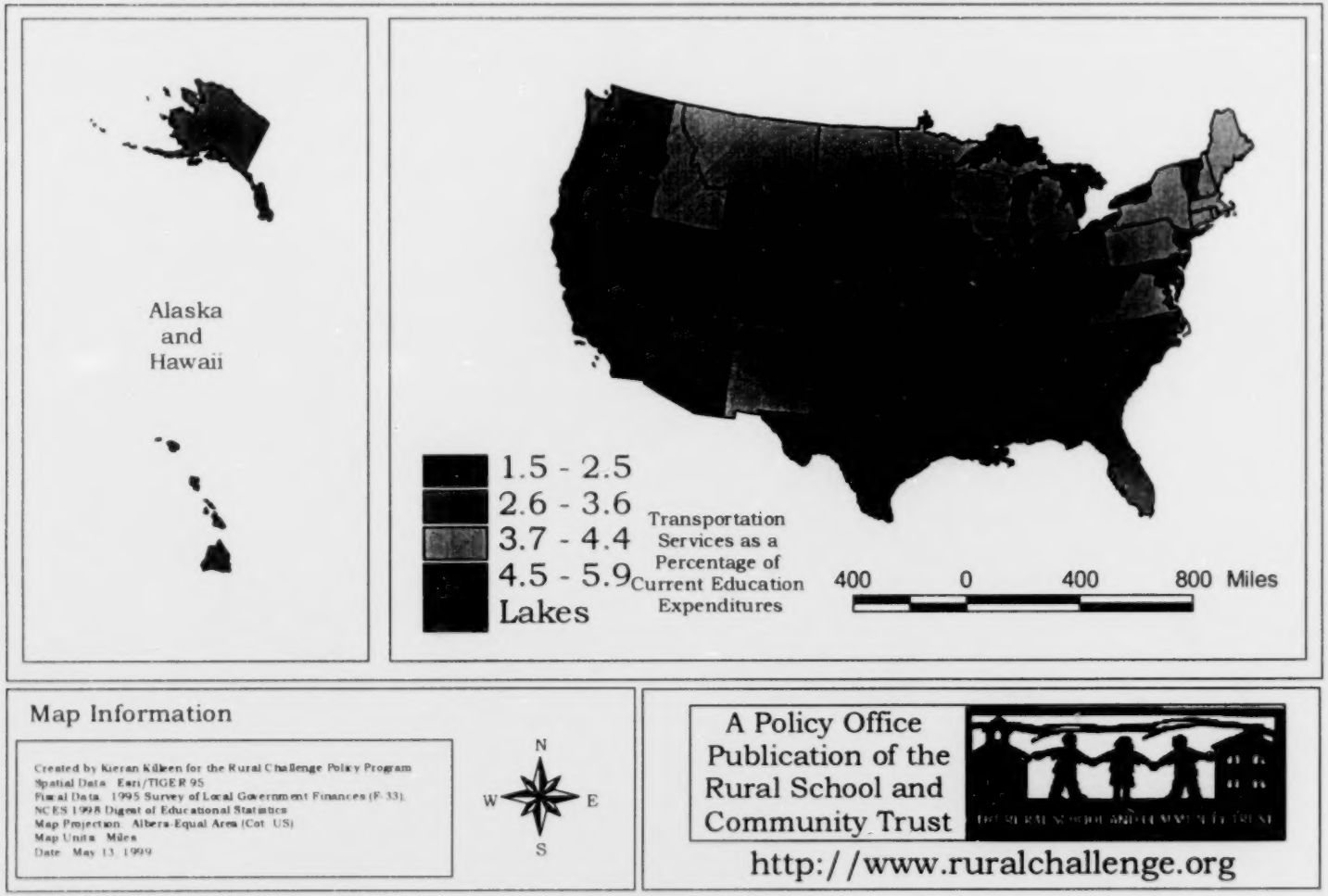

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Table 1 - Transportation Expenditures by Metropolitan Status Code
All US School Districts, 1994-1995

Descriptives

	Metropolitan Status Code	Mean Value
Pupil Enrollment (10/94)	Urban Area	22,686
	Suburban or Metropolitan	3,730
	Rural or Small Town	1,260
Transportation Expenditures, Per Pupil	Urban Area	62
	Suburban or Metropolitan	89
	Rural or Small Town	129
Transportation Expenditures as a Share of Total General Expenditures	Urban Area	.98
	Suburban or Metropolitan Area	1.30
	Rural or Small Town	1.74
Transportation Expenditures as a Share of Total Current Spending on Instruction	Urban Area	1.87
	Suburban or Metropolitan Area	2.49
	Rural or Small Town	3.31

Data: Census of Governments, F-33. Note (1) School Districts, N=14,283, (2) All mean differences are significant at the .01 level.

Discussion

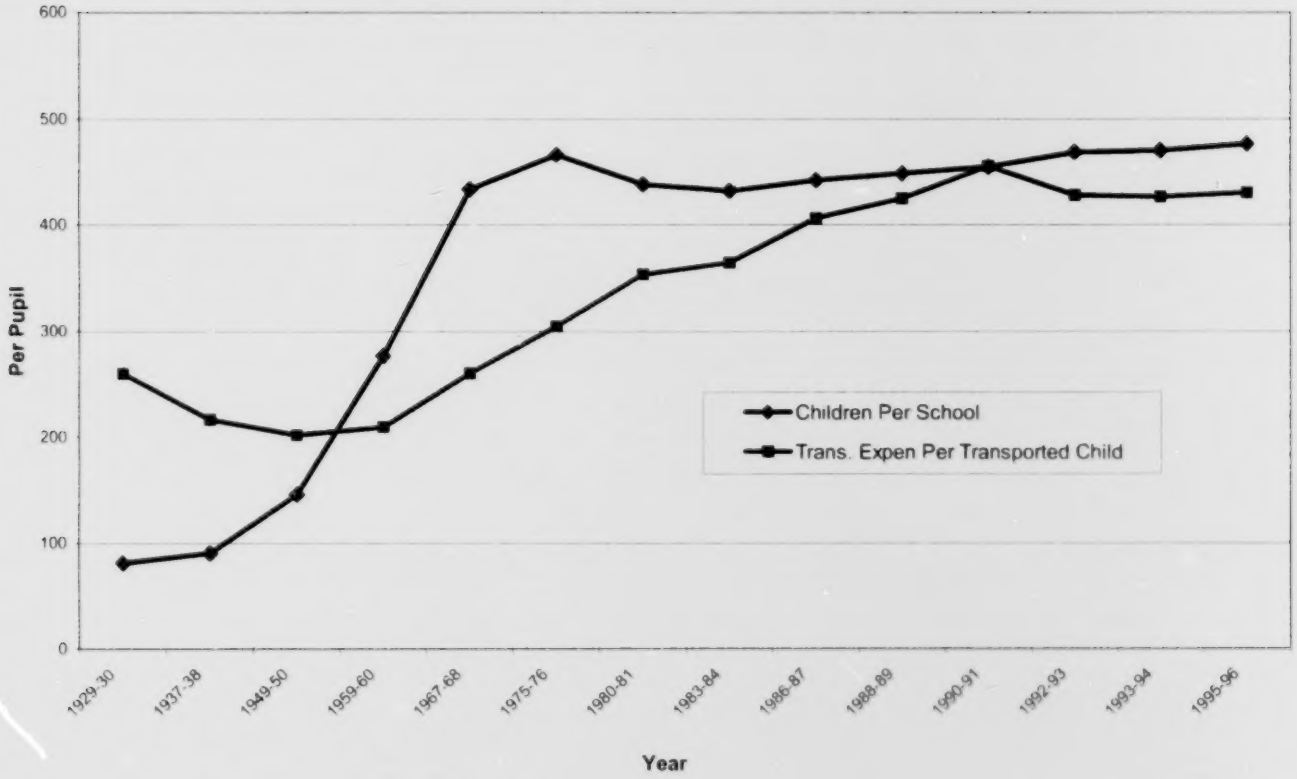
Despite school consolidation, school districts do not seem to benefit much from economies of scale in terms of their transportation policy. The data results suggest that despite widespread school and school district consolidation, transportation costs have increased (See Figure 7).

More and more children are served over time at increased transportation costs per pupil. As evidenced in Figure 1, consolidation increased school and school district size prior to 1945.

Between then and the early 1970's this rate accelerated quite quickly. Also, transportation costs per student also increased over this same period, and at a similar rate. Data from the 1990's suggests that transportation costs per child are greater in rural rather than urban school districts. Ideally, per pupil transportation costs should be compared before and after school district consolidation, but no such national data exist to do that. Such an approach is better suited for case study research. Yet, the evidence continues to suggest, and it is the main assumption of this research, that economy of scale arguments fail rural school districts in terms of transportation policy. The costs of providing transportation services coupled with the costs of bus ride time increase with consolidation in rural school districts.

Given this assumption, other arguments beyond fiscal criteria must stand to override economies of scale arguments. School districts consolidate and surplus schools in response to pressures other than enrollment, facility quality and potential economic savings. Identifying those external pressures is the main benefits of institutional analysis, the perspective presented in Part III.

Figure 7: Transportation Costs Escalate With Organizational Size: Historical Data, 1930-1995



Source: Adapted from NCES Digest of Education Statistics 1997, T89. Created by Kieran Killeen, 1999

III. An Institutional Analysis of School Consolidation

We now turn to a more conceptual level in our attempt to understand the relationship between increased transportation costs, school district organization and management, local, state, and national societal changes, and ultimately the quality of education offered by schools. In this circumstance the use of institutional theory helps to identify causes, agents, and substantive changes over time in school district expenditures and priorities (Scott, 1995; Strang, 1987). More specifically, institutional theory highlights the rules, norms, and taken for granted ways of organizing, managing, and responding to the societal pressures and expectations (Scott & Meyer, 1991). This is often not carried out in a passive, but rather in a strategic fashion (Oliver, 1991).

How has the historical environment in which the schools operate served to facilitate consolidation and allowed for the tremendous increase in transportation costs? Over time, student populations grow and contract and professional norms of practice are established, but of interest here is how organizations react to such changes. The conceptual work presented here seeks to identify how macro level pressures, like suburbanization, demographic change, growth in government, and professionalization of educational administration have been translated into institutional rules, beliefs, and norms that pressured and constrained local school organizations.

Major Themes of School Organization

For years, schools served their local community first, and only a distant second the state and national interests (Kaestle, 1983; Tyack, 1982). The earliest schools organized around a single teacher serving the desires of the local parents and community leaders. Somewhere around the turn of the century, the model of school organization changed dramatically. Modeled after the successful industrial archetype of the time, it was argued that a new class of school and school

leader was needed and that schools must become larger, bureaucratically organize, and be assessed on efficiency measures rather than student experiences or learning (Callahan, 1962). Since this time, schools and subsequently districts have organized around professionally prescribed management standards emphasizing efficient organizational structure and process. Increasing the number of students while decreasing costs became the mantra of school administration (Callahan, 1962). During this time (some argue that we continue to foster this goal orientation today) school organizational success became contingent on school leaders adopting such an organizational orientation. This resulted in often-blatant disregard for the children's learning and the needs of the community, particularly in rural areas (Howley, 1997; Kannapel & DeYoung, 1999).

Furthermore, while debating whether schools are organized around instruction or bureaucratic efficiency, it is important to examine the "core" task of schools (i.e., instruction). Most scholars and practitioners do not agree as to whether the technical core of schools is well defined, easily inspected, and assessable (Monk, 1991; Rowan, Raudenbush, & Cheong, 1993; Rowan, 1995). On the one hand, some researchers and practitioners argue that teaching is an art, or so idiosyncratic that identifying best practices in one classroom and transplanting them into another is futile. The context-is-everything perspective pushes away systematic and broad-sweeping changes across classrooms. From this perspective, improved instruction is best accomplished with strong local knowledge of individuals and context. Additionally, if the technical core of an organization is not agreed upon or easily inspected, the organization must rely on other criteria for sustaining its environmental support.

An alternative argument (often among policymakers and some researchers) follows that there may exist a systematic set of skills and standards that should be incorporated by all teachers to raise the performance of their students. These instructional strategies coupled with school-level

organizational forms and strategies are central to what Monk (1991) refers to as a "tractable education production function." That is, there is a set of identifiable practices and policies that once identified and implemented can systematically increase the productivity of classrooms and schools.

Should the idiosyncratic view of teaching be true, then Rowan (1990, 1993, 1995) argues that school organization and management must be "organic" in nature. Organic management and school organization allows for the necessary flexibility at the individual level to meet the needs of each unique classroom and child resulting in a very loosely-coupled system of independent organizational sub-units (Weick, 1976). Attempts at bureaucratic organization with tightly-coupled units within an organization carrying out uncertain tasks are at best unproductive and at worst damaging to the organizational enterprise. Alternatively, should the second argument be true that there exists an identified set of strategies that can be implemented across classroom, schools, and districts, to increase educational productivity, school managers should adopt more mechanistic (i.e. bureaucratic) management strategies (Rowan, 1995). When the core task of an organization is certain and has been shown to increase performance, the enterprise should organized to ensure such tasks are carried out.

This dichotomy of organizing schools around the core tasks and functions of schools has typically focused on the core instructional tasks of classroom teachers. This has resulted in a very loosely coupled system of classrooms within larger school units. In this analysis, we hope to broaden the discussion to district-level functions and goals and the important effects of the environment on school organization and practice. In this case, we juxtapose how school districts organize for instruction with how they organize for other support functions such as transportation and broader district organization.

Nature of the Environment

Meyer, Scott, and Strang (1987) differentiate between centralization of decisionmaking and environmental unification or fragmentation. Arguing that centralization of authority in the environment does not necessarily result in clear and certain environmental pressures, they opt for a continuum running from environmental unification to fragmentation. Environmental unification is found where there is clarity and unanimity within rules and norms as to what the expectations and demands shape a particular set of organizations. Conversely, and at the opposite end of the continuum, is the concept or environmental fragmentation. Fragmentation suggests the prevalence of diverse and often conflicting rules, expectations, and standards in the environment. Meyer, Scott, and Strange (1987) found that "a complex or fragmented organization environment" results in great increases in local bureaucracy as evidenced by the addition of administrative positions and expenditures. Similarly, Strang (1987) found that increases in state funding of local schools is associated with increased bureaucratic organization of local school administration. Of import to the present analysis is the identification and analysis of the environment of local schools throughout the period of school consolidation. To what degree did the state and federal government increase their "penetration and organization" of the local arena? Moreover, to what degree was the environment in which small rural schools coherent and to what degree was it fragmented? It is clear that the nature of the environment has great impact on the organization of local schools, resulting in a steadily increasing bureaucracy within and around public schools throughout much of the 20th century (Meyer, Scott, Strang, Creighton, 1988).

Organizational Success and Survival

As open systems, school districts strive to balance goal attainment with survival and social legitimacy concerns (Meyer and Scott 1983). Meyer and Rowan (1977, 1978) argued three

decades ago that organizational survival often overshadows particular goal attainment when the goals are ambiguous or conflictual. Rather than being able to survive because of successful goal attainment, schools and other organizations operating in an institutional environment seek the support of key stakeholders to ensure the requisite support necessary for survival. In this analysis, we argue that schools were faced with diffuse and "uninspectable" instructional goals and standards, while at the same time quite specific and "inspectable" bureaucratic goals (e.g., school size). This caused the districts to respond to the press from the efficiency experts to organize larger schools and larger districts in which the goals of bureaucratic organization could be realized. Additionally, organization for instruction resulted in schools providing age- and subject-specific classrooms with "qualified" teachers. These easily measurable indicators became the desired and prescribed goals for modern school organization. As school leaders conformed to the socially prescribed template for their school organization, they earned increased levels of legitimacy.

Legitimacy is defined as the level of cultural support for an organization, or the length to which cultural explanations justify the existence of an organization (Scott, 1991). In this way, school districts do not strive for technical efficiency, they strive to legitimate their actions through conformance to institutional rules and beliefs commonly held in society (Meyer and Rowan, 1977, 1978[4]). The survival of institutionalized organization is tied to its ability to link its operational activities to broader and more socially determined forces in the environment. As a result of the aforementioned uncertainty surrounding the technical core of schools, highly institutionalized rules, beliefs, and structures of society have a powerful influence on school districts (Meyer, Scott, & Deal, 1983). For example, schools must be accredited, hire only certified teachers, have age-graded distinctions among the student body, and offer extracurricular

activities expected by parents. Each of these developments were relatively easy to measure (inspect) and served as the basis for school administration in this country.

As organizations stress institutional conformance over gains in efficiency (or technical advancements) researchers posit that organizations within a given organizational field or sector will become more similar over time than different. DiMaggio and Powell (1983) were among the first to identify this process as *organizational isomorphism* and that the push for matching structures and programs often occur at the expense of efficiency (DiMaggio, 1987). They identified three main forms of isomorphic pressure exerted on organizations (1983, p. 150):

- *Coercive Isomorphism* is when change is mandated through formal and informal interorganizational pressures, via standards, shared legal or rule environments.
- *Normative Isomorphism* derives from rationalized beliefs of appropriate organizational behavior; these pressures are usually grounded in professionals and professionalism as agents that reach across organizations to apply pressure to change.
- *Mimetic Isomorphism* is when organizations rely on imitation or ritual action based off of other, seemingly more successful and superior organizations.

The act of conforming with the rules, norms, and cognitions and engaging in isomorphic behavior for organizations increases legitimacy and hence organizational survival. These remain the ultimate goals of an organization. This is not to say that organizations, and school districts in particular, avoid efficiency criteria at all costs and solely are creatures of environment. Whether an organization is more or less technically efficient is in a large part dependent on the tasks and goals of the organization. As described above, when the measurement of school or district goals is straightforward (e.g., size, transporting children), the legitimacy of the organization is

[4] Meyer and Rowan (1978) were among the first scholars to argue that school districts are accepted and largely substantiated in society due to institutional acceptance rather than for reasons of accountability or product inspection.

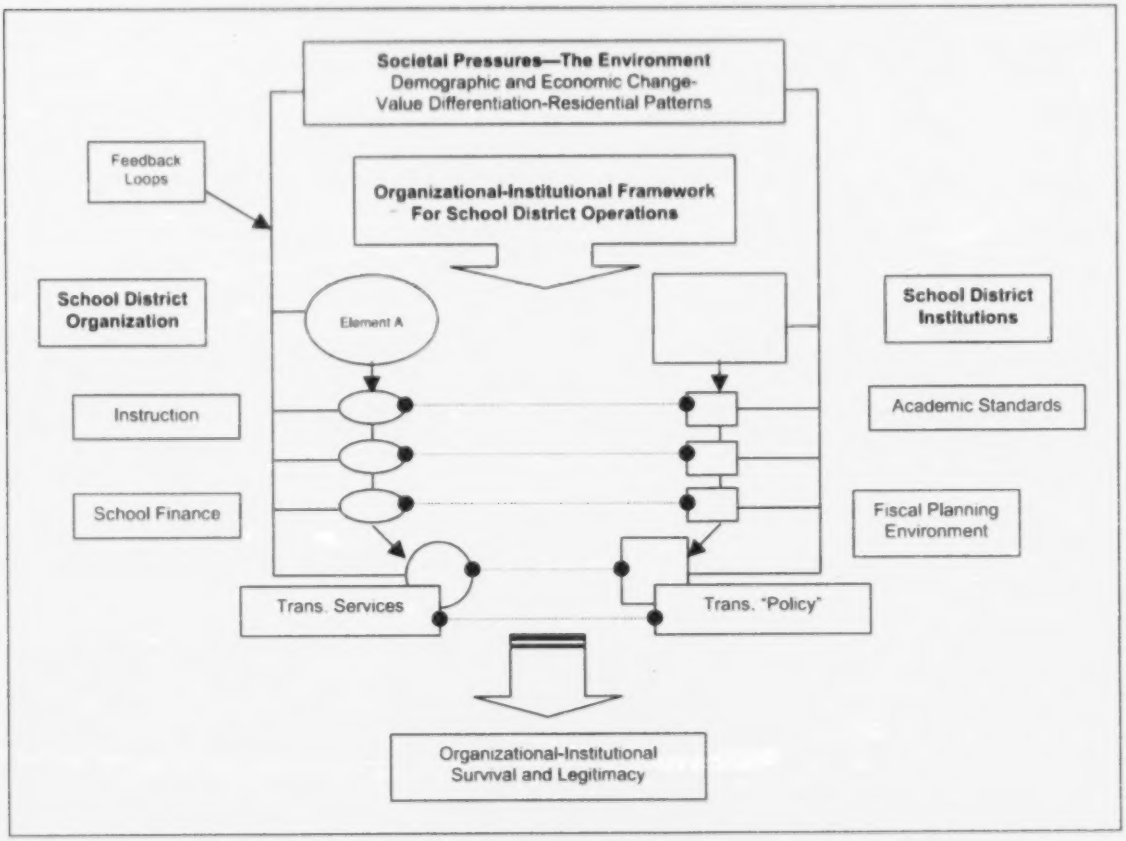
dependent on the actual measurement. When faced with uncertain inspection (quality instruction), the legitimacy is earned as a result of alignment with the established environmental norms.

While these initial institutional arguments describe the legitimacy/survivalist seeking behavior and reasons for proliferation of organizational form, they don't adequately explain why consolidation occurs or why local districts allow transportation costs to increase so greatly. Isomorphic behavior does explain rapid proliferation of consolidations across many states and over time. Faced with rapid forces of change, school districts may seek to annex neighboring districts, or merge themselves in order to retain and expand their legitimacy and continue to receive the increasing support from the state. However, in terms of institutional survival, consolidation always means closure on some level; closure of buildings, closure of attendance areas, relocation of children to new schools. In essence, consolidation is imbued with tremendous symbolic meaning for the end of one organization and the creation of another organizational form. Therefore, consolidation may mean increased levels of legitimacy and survival for some actors, but reduced legitimacy and hence organizational death for others. We argue that this is what happened to those small and rural schools. Unable to meet the measurable standards of good organizational practice, the schools were forced to merge with each other resulting in larger organizations that could meet the new prescribed standards. The value of the small schools to the community and children (as articulated by advocates of rural education) was less inspectable (due to the environmental uncertainty as to how to measure such value) and certainly flew in the face of the efficiency standards. Tiny schools, unable to provide quality instruction (as indicated by age- and subject matter specialization), were considered backward and old-fashioned and lost their legitimacy in the eyes of state leaders.

In order to understand how societal and institutional pressures reach organizational decision making, a model is presented for illustrative and descriptive purposes. School districts

themselves can be viewed as one entity or as an aggregate-tiered entity composed of a variety of sub-organizations or collaborative structures. Institutional pressures (See Figure 3) also influence these sub-units.

Figure 3. The Organizational-Institutional Framework



Note: Adapted from Cibulka 1995, Figure 1

Sets of organizations, that in the aggregate, constitute a "recognized area of institutional life" have been termed organizational fields (DiMaggio and Powell, 1983, p. 64), or more recently,

societal sectors (Scott & Meyer, 1991). Common examples are the healthcare sector, the transportation sector, and the education sector. Certainly, within such broadly defined sectors are what we might call sub-sectors in which we further differentiate between public and private hospitals and schools, or between air and land travel. The organizational sector view of organizations demonstrates how societal level events influence school district organization. The identification of societal pressures under this model seeks to identify those historical events, broad enough in society, such that equal pressure is applied to all organizations within society.

The two most transformative societal pressures to influence educational organizations in this century have been the processes of increased student enrollment from the baby boom, and post World War II suburbanization. Suburbanization and the baby boom are but two elements of societal level environmental change.[5] The discussion here on these two forces is not meant to be exhaustive. The baby boom began in 1945 and lasted for a twenty-year period, peaking near 1955. The boom itself was a composition of demographic events including increased birth rates to older women (25-30) who waited until after the war to begin having children, and second the rapid succession of second and third births to those women. These events, added to normal birth rates to women in their early 20's, created a tremendous boom of school aged children. Rapid post war suburbanization is closely linked to this population expansion. During the early 1950's, the advent of the interstate highway system, federally subsidized homeownership loans, intense housing demand, and favorable economies spurred an exodus from urban to suburban areas. New tract style housing developments were able to accommodate the housing location preferences of

[5] Other scholars have identified and analyzed the multitude of societal sectors and their influence. Among them are Goldring (1995) who identifies school finance issues, business influences, parental and community involvement as environmental influences of interest to the study of educational organizations.

many families[6]. The baby boom and suburbanization created unique pressures on school districts and schools.

Simplifying the situation, the population shift and population growth of the suburbs created the need to build new schools in formerly rural areas, and contend with the emptied urban schools. Organizations had to respond in some fashion to the shift in their student populations and their residences. However, the societal pressures described here really only impacted schools and school districts between 1945 and 1965. Empirical work indicates that consolidation began much earlier, although it greatly accelerated during the 1950's and 1960's. The institutional framework and model presented above shows how societal level pressures impact school districts, but it is coupled with institutional elements that those pressures make actually impact organizational decision making much earlier.

Defining Institutions and Institutional Sectors

Recent theoretical work by Scott both further defines institutions and offers a framework for categorizing institutional pressure on organizations. Scott (56, 1994) defines institutions as entities composed of three main layers: (1) meaning systems/behaviors; (2) representational, constitutive and normative elements; (3) regulatory enforcement. This definition was expanded in 1995 to define institutions more by identifiable elements rather than purpose. Sipple (1999, p. 5) elaborated on the three main tenets or pillars of Scott's work and offers a cleaner definition of institutions as "socially defined purposes around which normative, cognitive and regulative structures emerge to provide stability and meaning to social behavior." Scott's three pillars of institutional pressure (35-52, 1995) shall be used in this essay and require further elaboration:

[6] For an excellent historical account and critique of America's experiences with homeownership see Delores Hayden's Redesigning the American Dream (1984).

- Regulative: Institutions may regulate organizational behavior through formal rules, laws and codes or informal, yet authority driven inspections, sanctions, and reward mechanisms;

- Normative: Normative institutional pressure urges organizations to conform to societal norms (that which should be done) and values (norms + accepted standards for action). Norms assist in goal setting and values offer acceptable paths to achieve those goals;

- Cognitive: The last pillar is essentially a criterion that urges organizations to adhere to symbolic elements of institutions; symbolic pressure differs from rules or policy adherence. Cognitive elements are those performance scripts and action guidelines. When organizations seek to mimic other organizations, cognitive institutional pressure offers up the structural elements to make one organization resemble the other.

Regulative, normative and cognitive elements of institutions are themselves nested within functional sectors.

Similar to our interpretation of organizational fields, sectors are defined as the "domain of activity involving the production and distribution of a particular service or product" (Rowan and Miskel 366, 1999). There are five main layers to any sector with which to classify the sources of institutional pressure; these layers denote horizontal layers but the sector types denote a vertical framework (Scott and Meyer, 1991; Sipple 1999). Drawing on Scott and Meyer's work, the five layers of any sector are defined as:

A. National or society-wide offices, associations, and headquarters;
B. Regional or multi-state authorities, associations;
C. State offices, associations;
D. Sub-state areas, districts, councils; and
E. Local units, branch offices, establishments

Defined in this fashion institutional pressure could be narrowly identified as originating from distinct yet interrelated organizations. Moreover, in the evaluation of consolidation, institutional theory seeks to identify those formal rules, values and symbolic pressures implemented by multiple sectors in society.

The categorization of institutional pressures under Scott's three pillar framework (Regulative, Normative, and Cognitive) and Scott and Meyer's sector framework (National, State, Association, etc.) offers a useful template by which to identify historically significant institutional pressures that uniquely pressured schools and school districts to consolidate. Figure 4 offers such a framework:

In the simplest fashion, the institutional environment surrounding consolidation as categorized in Figure 4 identifies the unique actors that have pressured school districts to consolidate. Actors, interpreted broadly, include Federal, state and local agencies, professional organizations, as well as the "agency" that formal rules, laws, and political/theoretical opinion provides. With the content cells for Figure 4, the most important institutional elements supporting consolidation have been highlighted and generally fall under what are called Tier One pressures. Tier Two pressures by comparison are influential, yet secondary pressures to influence consolidation. Under this rubric, Tier Two pressures are generally predicated on the existence of some aspect of a Tier One actor.

The most critical actor for consolidation is probably centered on the regulative institutions of state offices and professional associations. Woven tightly into the fabric of state government and legal structure is the authority of states to influence their will over local school districts. Howley (1993) reviewed the legal history of US statutory and case law that shows the consistent support for state authority over the definition of territory and organization of school districts. Howley argues that the exercise of this control is itself an example of states wielding their rights to sovereignty and self-legitimacy (1993). Coupled with the professionalization of schooling in the 20th century, states often justified their efforts to consolidate schools with efficiency and economies of scale arguments as they sought to economize their own growing investment in schooling (DeYoung and Howley, 1992).

Figure 4. The Institutional Environment for School and School District Consolidation

	Institutional Type		
Institutional Sector	*Regulative Institutions*	*Normative Institutions*	*Cognitive Institutions*
National or society-wide offices, associations, and headquarters	**Tier 1: National Transportation Agencies; Federal Housing Authority; Housing and Urban Development Agencies; Water and Wastewater Infrastructure Financing Agencies**; Special Education Subsidy; American's with Disabilities Act. *Tier 2: National Tax Laws Governing Bonding*	Tier 1: Supreme Court Cases sanctioning school busing and equality; *Tier 2: Federal Protection for Special Groups associated with Civil Rights Administration*	**Tier 1. Shift from communal to liberal identity structures encourages rural to urban migration**. *Tier 2: Model zoning codes and sub-division development patterns proliferated by planners (American Institute of Certified Planners and the American Planning Association); Rural advocacy organizations*
Regional or multi-state authorities, associations	N/A	N/A	N/A
State offices, associations	**Tier 1. State Departments of Education and Territoriality–SED, Authority over boundaries, Consolidation laws, facility design, construction approval** *Tier 2. School Finance / Construction Funding by SED; Bonding Laws;*	Tier 1: State Office of Economic Development (Rural Development Advocacy); SED rural workforce development; *Tier 2:* State Court Interpretations of Code; School Finance litigation; Real Estate and Developer Lobbyists	**Tier 1: Role of Professional Efficiency and Education for Economic Development; School Facility Planning Guidelines and Planning Standards-Design to accommodate Curriculum**. *Tier 2: N/A*
Sub-state areas, districts, councils	Tier 1: Presence or absence of School Building Authority; BOCES or other Regional Education Service Agency with Oversight Authority. *Tier 2: N/A*	Tier 1: Regional Planning Agencies. *Tier 2: N/A*	Tier 1: Recognition among multiple school districts that consolidation can be productive. *Tier 2: N/A*
Local units, branch offices, establishments	**Tier 1: Capital Improvement Plans (Water & Sewer Extensions, Road Development); Municipal and School Budget Limitations Referendums**; Municipal Building Codes; Local property tax limitations. *Tier 2: N/A*	Tier 1: Business Advisory Councils; Comprehensive planning documents for schools and community; *Tier 2: Growth management goals; Land conservation societies*	**Tier 1: Compliance or Resistance to State Education Agency; Facility Planning Standards (Class Size, Facility Capacity, etc)**; Sense of fiscal health of community and public administrations; Policy and procedures for evaluating consolidation by community; land use and population growth assumptions and policy; Housing market conditions (hot, substitutable, etc); *Tier 2: Consultants and contracted assistance; Existing debt load and organizational bond ratings; Bond Markets; Community toleration of sprawl*

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Increasingly though, states have advanced the notion that education leads to state and individual economic growth encouraging states to implement consolidation in order to afford curricular advantages to the greatest number of its citizens. Consolidation is seen as vehicle for improved opportunities to invest in instructional resources (DeYoung and Howley, 1992). On a more cognitive and national level, consolidation particularly in rural schools represents a shift from communal to liberal value identification. Theobald (1994) argues that modern liberal thought has contributed much to an individual/competitive rather than community oriented perspective. He links this ideological shift as a supporter of efficiency arguments in school administration as well as the reason rural youth seek to capitalize on their education through migration from rural areas after they are schooled (Theobald, 1994). State actions therefore have factored heavily as institutional pressures towards consolidation with a significant effect of disrupting the communal nature of small rural schools (Post & Stambach, 1999) and encouraging the out-migration of the most successful students from their rural home communities.

Over this same period, rapid changes in land use development and facility design standards also created the supportive institutional pressure for consolidation. The "heavy subsidy" of the federal government in financing road, water, and sewer infrastructure contributed heavily to the widening, rather than concentration of urban areas. National transportation and housing agencies acted as the lead agents for this subsidy. The result created new suburban residential communities muting the territorial lines between small, rural districts, suburban districts, and urban districts. In a sense, movement to the suburbs also represents the growth of individualistic rather than community oriented actions. Rapid population growth over the 20th century, and new residential patterns met changes in curricular needs that greatly influenced the facility design schemes promoted by educational architects and planners (Herman 1995). For example, the Lancaster School Movement was itself a means of accommodating large numbers of urban schoolchildren at one time. Graves (1993) shows in rather succinct fashion how designers and educators

essentially worked to transform the provision of education from one-room schoolhouses, to transitional schools, to graded elementary schools, to larger junior and high school facilities. What was clearly lost, early in the 20th century, was the early planning standard requiring elementary schools to be sited within a one mile walking distance from a child's home[7].

This review of the importance of state authority, planning and design standards is not meant to be comprehensive, but rather illustrative of those mediating yet influential institutional pressures that cause consolidation of schools.

IV. Conclusion: Synthesizing Traditional School Consolidation Explanations with Institutional Theory

The primary function of this essay was to investigate school consolidation in light of institutional theory. Traditional reasons for consolidation were discussed and shown to (a) falter under transportation efficiencies, and (b) create disproportional impacts small, rural schools. Institutional arguments demonstrated how ideological reasons have outweighed traditional and rational explanations for consolidation in light of the transportation disadvantage evidence shown for of rural schools. The institutional arguments show how consolidation has been principally justified according to the exaction of state authority over local school districts (Strang, 1987). Secondarily, consolidation has been supported through national policy towards housing and land use development. Institutional perspectives of organizational legitimacy and survival do not seem to justify consolidation. In terms of organizational survival, consolidation always includes the complete end to at least some organizational form, which seems contrary to the proposed theory. However, perhaps the organizational form of small schools, weak school districts, and so on, represent weakened organizational forms that make them more susceptible to co-optation or

[7] For a more thorough history and evaluation of neighborhood schools in the history of town planning, see Killeen (1998), *The Educational Planning of Greenbelt, Maryland*.

organizational death by other legitimacy seeking organizations (Haverman, 1993). This latter argument implies pressure results from organizational competition, an area beyond the scope of this initial research.

The institutional arguments presented here do much to understand the environmental backdrop for school and school district consolidation. As a framework, the organizational model, as well as the Organizational-Institutional Sector Model offer useful graphs for evaluating a rather complex phenomenon.

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